

Figure 1: Partial bit-stream reconstructions from a progressive encoding of the Venus head model. File sizes are given in bytes and relative L2 reconstruction error in multiples of 10-4. The right most reconstruction is indistineuishable from the original.

FIGAR FIGAR FIGAR

Figure 2: Three spherical meshes each with 2562 vertices: smooth semi-regular (left), non-smooth semi-regular (middle), irregular (right). They have the same geometry information. The middle one also has parameter information while the right one has narameter and connectivity information.

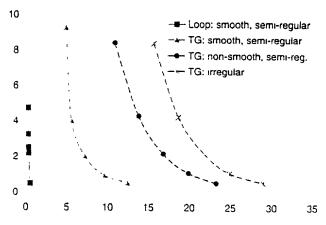


Figure 3: Rate distortion curves for the triangle meshes from Figure 2 measured in relative  $L^2$  error on a scale of  $10^{-4}$  as a function of rate in b/v for TG coordinate quantization levels of 8-12b.

Taput manifold

405

Smooth parametrization

410

Determine parametrization

W semi-regular connectivity

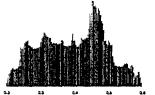
Wavelet transform

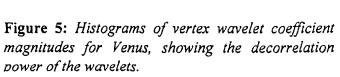
420

Compress with

Zerotrees

F 16 4





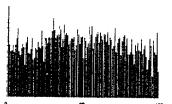




Figure 6: Histograms of wavelet coefficient polar 6 angles for the Venus head model in global (left) and local (right) frames. Coefficients lie mostly in the normal direction.

Figure 7: A coarse edge (left) is parent to four finer